

# Training and Evaluation Outline Report

**Status: Approved**

**28 Dec 2015**

**Effective Date: 24 Jan 2017**

**Task Number:** 05-PLT-5113

**Task Title:** Provide Construction Site Cut/Fill Support

**Distribution Restriction:** Approved for public release; distribution is unlimited.

**Destruction Notice:** None

**Foreign Disclosure: FD1** - This training product has been reviewed by the training developers in coordination with the Fort Leonard Wood, MSCoE foreign disclosure officer. This training product can be used to instruct international military students from all approved countries without restrictions.

## Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	ATP 5-19 (Change 001 09/08/2014 78 Pages)	RISK MANAGEMENT <a href="http://armypubs.army.mil/doctrine/DR_pubs/dr_a/pdf/atp5_19.pdf">http://armypubs.army.mil/doctrine/DR_pubs/dr_a/pdf/atp5_19.pdf</a>	Yes	No
	FM 5-430-00-1	Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Road Design	Yes	Yes
	NTRP 4-04.2.3/TM 3-34.41/AFPAM 32-1000	Construction Estimating ( <a href="HTTPS://NDLS.NWDC.NAVY.MIL">HTTPS://NDLS.NWDC.NAVY.MIL</a> ) <a href="https://armypubs.us.army.mil/doctrine/DR_pubs/dr_aa/pdf/tm3_34x41_PH_Navy.pdf">https://armypubs.us.army.mil/doctrine/DR_pubs/dr_aa/pdf/tm3_34x41_PH_Navy.pdf</a>	Yes	No
	NTRP 4-04.2.5/TM 3-34.42/AFPAM 32-1020/MCRP 3-17.7F	Construction Project Management ( <a href="HTTPS://NDLS.NWDC.NAVY.MIL">HTTPS://NDLS.NWDC.NAVY.MIL</a> ) ( <a href="https://armypubs.us.army.mil/doctrine/DR_pubs/dr_aa/pdf/tm3_34x42_PH_Navy.pdf">https://armypubs.us.army.mil/doctrine/DR_pubs/dr_aa/pdf/tm3_34x42_PH_Navy.pdf</a> )	Yes	No
	TM 3-34.62	Earthmoving Operations (MCRP 3-17.71)	Yes	No

**Conditions:** The element is directed to provide cut/fill support on a construction site. The element is currently conducting operations in support of higher headquarters (HQ). The higher HQ operation order (OPORD), construction directive, plans, specifications, and standard operating procedures (SOP) are available. Higher HQ analysis of the area of operations (AO) and environment are available. All necessary personnel and equipment are available and fully mission capable. All unexploded ordnance (UXO) has been cleared. Coalition partners, noncombatants, and media may be present in the operational environment. The element is not likely to be attacked.

Note: The Commander must still determine at what level of training they would want the element to perform. Crawl, walk or run. This can only be determined after consideration as to the units training level.

The Commander prior to evaluating an element in the conduct of the task must determine if it will be conducted in a Live, Virtual, or Constructive environment, additionally it must also be determined which condition as described below that the element will conduct the task. The selection made for this task is at a trained level of proficiency. The commander must determine which of the environments below will best suit the unit and the proficiency level at which the unit is. When conducting crawl or walk level training units should not increase the intensity until the unit has achieved the standards and then unit trainers should include variables that increase proficiency in all conditions.

Note: The condition statement for this task is written assuming the highest training conditions reflected on the Task Proficiency matrix required for the evaluated unit to receive a "fully trained" (T) rating.

Note: Condition terms definitions:

Dynamic Operational Environment: Three or more operational and two or more mission variables change during the execution of the assessed task. Operational variables and threat Tactics, Techniques, and Procedures (TTPs) for assigned counter-tasks change in response to the execution of Blue Forces (BLUFOR) tasks.

Complex Operational Environment: Changes to four or more operational variables impact the chosen friendly COA/mission. Brigade and higher units require all eight operational variables of Political, Military, Economic, Social, Infrastructure, Information, Physical environment, and Time (PMESII-PT) to be replicated in varying degrees based on the task being trained.

Single threat: Regular, irregular, criminal or terrorist forces are present.

Hybrid threat: Diverse and dynamic combination of regular forces, irregular forces, and/or criminal elements all unified to achieve mutually benefiting effects.

This task should not be trained in MOPP 4.

**Standards:** The element provides cut/fill support in accordance with specifications and within the time indicated in the construction directive or OPORD.

Note: Leaders are defined as the Commander, Executive Officer, First Sergeant, Operations Sergeant, Platoon Leaders, Platoon Sergeants, Squad Leaders, and Team Leaders.

**Live Fire Required:** No

### Objective Task Evaluation Criteria Matrix:

Plan and Prepare			Execute						Assess	
Operational Environment			Training Environment (LV/C)	Training/Authorized % of Leaders Present at	% of Soldiers Present at	External Eval	% Performance Measures 'Go'	% Critical Performance Measures 'Go'	% Leader Performance Measures 'Go'	Task Assessment
SQD & PLT										
Dynamic (Single Threat)	Day	IAW unit CATS statement.	>=85%	>=80%	Yes	>=91%	All	>=90%	T	
			75-84%			80-90%		80-89%	T-	
65-74%			75-79%	65-79%	P					
60-64%			60-74%	51-64%	P-					
<=59%			<=59%	<=50%	U					

**Remarks:** None

**Notes:** None

**Safety Risk:** Low

<b>Task Statements</b>
------------------------

**Cue:** None

## **DANGER**

Leaders have an inherent responsibility to conduct Risk Management to ensure the safety of all Soldiers and promote mission accomplishment.

## **WARNING**

Risk management is the Army's primary decision-making process to identify hazards, reduce risk, and prevent both accidental and tactical loss. All Soldiers have the responsibility to learn and understand the risks associated with this task.

## **CAUTION**

Identifying hazards and controlling risks across the full spectrum of Army functions, operations and activities is the responsibility of all Soldiers.

**NOTE:** Assess task proficiency using the task evaluation criteria matrix.

STEP/MEASURE	GO	NO-GO	N/A
+ 1. The element leader conducts troop-leading procedures.			
a. Conducts preliminary construction planning.			
b. Requests augmentation support if required.			
+* 2. The element leader conducts detailed project planning.			
a. Conducts a site visit if conditions allow.			
+ b. Selects equipment best suited for the mission.			
+ 3. The element establishes work site security.			
+ 4. The element performs cut/fill operations.			
+ a. Uses dozers to move material up to 300 feet.			
(1) Ensures fill material is stockpiled in designated locations.			
(2) Maximizes production by push loading scrapers.			
(3) Employs ripper dozers to loosen hard materials.			
+ b. Uses scrapers to haul materials from 301 feet to 5,000 feet.			
(1) Uses cut, load, and spread sequence (figure 8 method), whenever possible.			
(2) Determines the loading technique used for maximum production.			
(3) Maintains the desired fill slope by making the fill high on the outside edges to prevent scraper sliding over the slope.			
(4) Overlaps wheel paths when spreading to aid in compaction.			
+ c. Uses dump trucks to haul material 5,001 feet and greater.			
(1) Ensures trucks are filled as close as possible to capacity for maximum efficiency.			
(2) Monitors speed limits for maximum efficiency.			
+ d. Conducts compaction operations if required.			
+ e. Conducts drainage operations if required.			
+* 5. The element leader submits status reports to higher headquarters according to the unit standing operating procedure (SOP).			

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL PERFORMANCE MEASURES EVALUATED							
TOTAL PERFORMANCE MEASURES GO							
TRAINING STATUS GO/NO-GO							

**COMMANDER/LEADER ASSESSMENT:** T P U

**Mission(s) supported:** None

**MOPP 4:** Never

**MOPP 4 Statement:** None

**NVG:** Never

**NVG Statement:** None

**Prerequisite Collective Task(s):**

Step Number	Task Number	Title	Proponent	Status
	05-PLT-5108	Perform Clearing, Grubbing, and Stripping Operations	05 - Engineers (Collective)	Approved

Page 4

Step Number	Task Number	Title	Proponent	Status
	05-PLT-5112	Perform Soil Stabilization	05 - Engineers (Collective)	Approved
	05-PLT-5115	Provide Dust Control Measures	05 - Engineers (Collective)	Approved
	05-PLT-5137	Provide Borrow Pit Support	05 - Engineers (Collective)	Approved
1.	71-CO-5100	Conduct Troop Leading Procedures for Companies	71 - Combined Arms (Collective)	Approved
3.	05-PLT-3006	Establish Work Site Security for a General Engineering Mission	05 - Engineers (Collective)	Approved
4.	05-PLT-5114	Provide Construction Site Drainage	05 - Engineers (Collective)	Approved
4.	05-PLT-5116	Provide Excavation Support	05 - Engineers (Collective)	Approved
4.	05-PLT-5111	Provide Construction Site Compaction Support	05 - Engineers (Collective)	Approved
4.	05-PLT-5144	Perform Dump Truck-Hauling Operations	05 - Engineers (Collective)	Approved
5.	05-CO-0018	Conduct Report Procedures	05 - Engineers (Collective)	Approved
e.	05-PLT-5114	Provide Construction Site Drainage	05 - Engineers (Collective)	Approved

**OPFOR Task(s):**

Task Number	Title	Status
71-CO-8502	OPFOR Execute an Ambush	Approved
71-CO-8504	OPFOR Execute a Reconnaissance Attack	Approved

**Supporting Individual Task(s):**

Step Number	Task Number	Title	Proponent	Status
	052-12N-1004	Interpret Construction Survey Stakes	052 - Engineer (Individual)	Approved
	052-12N-1009	Push Load a Wheel Tractor-Scraper with a Crawler Tractor	052 - Engineer (Individual)	Approved
	052-12N-4001	Manage a Horizontal Construction Project	052 - Engineer (Individual)	Approved
	052-210-1005	Manage Projects Using TCMS and MS Project	052 - Engineer (Individual)	Approved
	052-210-1016	Manage the Installation of Culverts	052 - Engineer (Individual)	Approved
	052-210-1218	Manage Soil Sample Representative Procedures	052 - Engineer (Individual)	Approved
	052-210-1222	Manage Preliminary Site Survey (Topographical/Radial Survey)	052 - Engineer (Individual)	Approved
	052-210-1224	Manage Balance Earthwork Volumes	052 - Engineer (Individual)	Approved
	052-210-1225	Manage a Soils Exploration	052 - Engineer (Individual)	Approved
	052-210-1236	Review a Soils Technical Report	052 - Engineer (Individual)	Approved
	052-243-1303	Perform Differential Leveling	052 - Engineer (Individual)	Approved
	052-243-1506	Classify a Soil Using the Unified Soil Classification System	052 - Engineer (Individual)	Approved
	052-243-1541	Produce Civil Engineering Drawings	052 - Engineer (Individual)	Approved
	052-253-1059	Pressure Fill a Water Distributor	052 - Engineer (Individual)	Approved
	052-253-1060	Spray an Area Using a Water Distributor	052 - Engineer (Individual)	Approved
	052-253-1205	Load Haul Unit(s) Using a Small-Emplacement Excavator (SEE)	052 - Engineer (Individual)	Approved
	052-253-1206	Backfill an Area Using a Small-Emplacement Excavator (SEE)	052 - Engineer (Individual)	Approved
	052-254-1037	Construct a Ditch With a Crawler Tractor	052 - Engineer (Individual)	Approved
	052-254-1038	Construct a Stockpile With a Crawler Tractor	052 - Engineer (Individual)	Approved
	052-254-1042	Level Fill Material in a Fill Area With the Angle Blade of a Crawler Tractor	052 - Engineer (Individual)	Approved
	052-254-1052	Construct a V Ditch With a Motorized Grader	052 - Engineer (Individual)	Approved
	052-254-1053	Level a Road With a Motorized Grader	052 - Engineer (Individual)	Approved
	052-254-1055	Spread Piles of Loose Material With a Motorized Grader	052 - Engineer (Individual)	Approved
	052-254-1069	Excavate Material From an Area With a Motorized Scraper	052 - Engineer (Individual)	Approved
	052-254-1070	Spread Fill Material With a Motorized Scraper	052 - Engineer (Individual)	Approved
	052-254-1076	Spread a Stockpile With a Deployable Universal Combat Earthmover (DEUCE)	052 - Engineer (Individual)	Approved
	052-256-3020	Interpret a Construction Print	052 - Engineer (Individual)	Approved
	052-256-3041	Direct Soils Stabilization Operations	052 - Engineer (Individual)	Approved
	052-256-3042	Direct Drainage Operations	052 - Engineer (Individual)	Approved
	052-256-3043	Direct Crawler Tractor Operations	052 - Engineer (Individual)	Approved
	052-256-3045	Direct Motor Grader Operations	052 - Engineer (Individual)	Approved
	052-256-3046	Direct Compaction Operations	052 - Engineer (Individual)	Approved
	052-256-4143	Schedule Work in a Construction Project	052 - Engineer (Individual)	Approved
	052-256-4151	Supervise the Construction of a Road	052 - Engineer (Individual)	Approved
	052-306-7101	Direct Construction Site Reconnaissance	052 - Engineer (Individual)	Approved
	052-306-7106	Interpret Construction Documents	052 - Engineer (Individual)	Approved

**Supporting Drill(s):** None

**Supported AUTL/UJTL Task(s):**

Task ID	Title
ART 4.1.7	Provide General Engineering Support

**TADSS**

TADSS ID	Title	Product Type	Quantity
No TADSS specified			

## Equipment (LIN)

LIN	Nomenclature	Qty
W76816	Tractor Full Tracked Low Speed: Diesel Med DBP wBULDOZ wSCARIF Winch	1
S05029	Scraper Earthmoving: 14-18 Cubic Yard	1
X44403	Truck Dump: 20 Ton Diesel Engine Driven 12 Cubic Yard Capacity (CCE): M917	1
L15041	Loader Scoop Type: Heavy Type II Loader	1
G74783	Grader Road Motorized: Diesel Driven Heavy (CCE)	1
E05007	Engineer Mission Module-Water Distribution (EMM-WD): Type II	1
T65274	Truck Dump 10 Ton w/Winch	1
E61618	Compactor High Speed: Tamping Self-Propelled (CCE)	1
R11127	ROLLER MOTORIZED W/AOA	1

## Materiel Items (NSN)

NSN	LIN	Title	Qty
No materiel items specified			

**Environment:** Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to the current Environmental Considerations manual and the current GTA Environmental-related Risk Assessment card. .

**Safety:** In a training environment, leaders must perform a risk assessment in accordance with ATP 5-19, Risk Management. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination. .